

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 11 (currently amended) An integrated circuit for ~~coupling enabling~~ a peripheral device ~~coupled with by a network to a server~~, and the integrated circuit comprising:

~~a memory; and~~

~~a processor configured to couple to the network and the peripheral device, and the processor operable during an initialization mode to generate a unique identifier uniquely identifying the integrated circuit peripheral device, to communicate send across the a network packet to the server utilizing including a non-unique network source address together with the unique identifier, to obtain download from the server a network packet which includes the unique identifier, both an operating system for the peripheral device and a unique network address, and to download the operating system to the peripheral device via the memory thereby enabling a run-time mode for the peripheral device.~~

Claim 28 (previously presented) The integrated circuit of Claim 11, wherein the unique identifier is a random number generated by the processor .

Claim 29 (currently amended) The integrated circuit of Claim 11, further comprising:

a cache memory;

~~a cache controller coupled to the cache memory; and~~

~~the processor further operable during the initialization mode to disable the cache controller and to download the operating system for the peripheral device to the cache memory and from the cache memory to the peripheral device, and the processor operable~~

during the run-time mode to enable the cache controller thereby enabling the cache memory as a cache memory for caching run-time processes executed by the processor.

Claim 30 (previously presented) The integrated circuit of Claim 29, wherein the run-time processes executed by the processor include processes associated with the operating system for the peripheral device.

Claim 31 (currently amended) The integrated circuit of Claim 11, further comprising:

a local bus with address and data lines coupled to both the processor and the memory; and

address and data buffers for coupling the local bus to the peripheral device thereby to enable the processor to execute processes associated with the operating system of the peripheral device.

Claim 32 (previously presented) An integrated circuit for coupling a peripheral device with a network, and the integrated circuit comprising:

a memory;

a cache controller coupled to the memory; and

a processor operable during an initialization mode to disable the cache controller and to download an operating system for the peripheral device from the network to the memory and from the memory to the peripheral device, and the processor operable during a run-time mode to enable the cache controller thereby enabling the memory as a cache memory for run-time processes executed by the processor.

Claim 33 (previously presented) The integrated circuit of Claim 32, with the processor further operable during the initialization mode to generate a unique identifier uniquely identifying the integrated circuit, to communicate across the network utilizing a non-unique network address together with the unique identifier to obtain both the operating system for

the peripheral device and a unique network address for the run-time mode, and to download the operating system to the peripheral device via the memory thereby enabling the run-time mode for the peripheral device.

Claim 34 (previously presented) The integrated circuit of Claim 33, wherein the unique identifier is a random number generated by the processor .

Claim 35 (previously presented) The integrated circuit of Claim 32, wherein the run-time processes executed by the processor include processes associated with the operating system for the peripheral device.

Claim 36 (previously presented) The integrated circuit of Claim 32, further comprising:  
a local bus with address and data lines coupled to the processor, the memory and the cache controller; and  
address and data buffers for coupling the local bus to the peripheral device thereby to enable the processor to execute processes associated with the operating system of the peripheral device.

Claim 37 (currently amended) A method for enabling an integrated circuit coupling a peripheral device coupled to ~~by~~ a network to a server execute instructions, comprising the acts performed on the integrated circuit of:

generating ~~in an initialization mode~~ a unique identifier uniquely identifying the integrated circuit peripheral device ;  
~~communicating sending in the initialization mode across the a network packet to the server utilizing a non-unique network source address together with the unique identifier; to obtain both an operating system for the peripheral device and a unique network address;~~

downloading in the initialization mode from the server a network packet which includes the unique identifier, the an operating system to for the peripheral device and a unique network address; and

enabling a run-time mode for the network operation of the peripheral device.

Claim 38 (previously presented) The method of Claim 37, wherein the unique identifier generated in the generating act comprises a random number.

Claim 39 (currently amended) The method of Claim 37, wherein:

the downloading act further comprises the acts of:

temporarily storing the operating system in a volatile memory within the integrated circuit;

transferring the operating system in the volatile memory to the peripheral device; and wherein

the enabling act further comprises the acts of:

enabling the volatile memory to perform as a cache memory during run-time mode for processes executed by the processor associated with the operating system for the peripheral device.

Claims 40-44 (canceled)